

NPDES Permit No. WA0038075
For Rustlewood WWTP
Response to Comments

Comment from Frank Meriwether, Environmental Engineer, Department of Health, Office of Shellfish Programs

Comment: The shellfish notification clause (S3.A.1.b) isn't quite right anymore. For some years now we carry a beeper 24/7 to respond immediately to sewage spills etc. So the sentence "For after-hours events, report at the start of business the next work day" should be deleted.

Response: Ecology has no issue with deleting that sentence, and as your comment states, the Permittee should immediately report sewage spills. The sentence will be deleted before the permit is reissued.

Comments from Jeff Dickison, Policy Analyst, Squaxin Island Tribe

Comment #1: It appears that Ecology is proposing to simply re-issue the existing permit, already over five years out of date, without any consideration of compliance with the previous permit or upgrading the treatment process, consistent with the law, to better protect receiving water quality. This approach falls well short of your statutory obligations to protect water quality.

Response #1: Ecology did consider compliance with the previous permit and upgrading the treatment process prior to deciding to reissue the permit without changes to the requirements. The Rustlewood facility has been in compliance with the existing permit over the past couple of years, and this satisfactory compliance history does not give any reason to require any upgrades to the system. The receiving water quality has been protected by the previous permit, and should continue to be protected by continuing the same permit requirements.

Comment #2: The 1991 Fact Sheet notes, for example "excessive infiltration and inflow (I/I) entering the system and increasing the hydraulic load of the facility by as much as 2,000 percent." The Fact sheet notes that the facility had a history of complying with BOD and TSS requirements that appears to be related to the hydraulic overloading. It also states that "a systematic plan for reduction of (I/I) is required." Has that systematic plan been developed? Has it been implemented? Have the string of periodic violations of discharge standards been resolved?

Response #2: A plan for dealing with the I/I was developed and implemented. In 1997 Mason County began a construction project to eliminate I/I from entering the wastewater collection system. Using the engineering report titled, *Rustlewood Sanitary Sewer System Infiltration and Inflow Study*, as a guide, Mason County actively identified the largest sources of I/I. For a relatively small budget, \$100,000 for engineering, construction management and construction, Mason County performed one of the more successful I/I reduction projects. The following table presents winter flow volume before and after the construction program:

<u>Year</u>	<u>Average Daily Flow (MGD)</u>	<u>Daily Maximum (MGD)</u>
Winter 1996	0.0622	0.2669

Winter 1997	0.0302	0.1165
Winter 1998	0.0453	0.1594

A yearly comparison using flow records is not an entirely accurate way to determine the success of any collection system rehabilitation because of yearly precipitations differences. However, winter 1998 (November-March) precipitation was the highest ever recorded and flow was substantially less than pre-construction conditions. With this reduction in flow, the string of periodic violations of discharge standards has been resolved.

Comment #3: With current trends acknowledging the deleterious effects of a chlorine based disinfection process, we are surprised that no further examination of this issue is considered in this permit. Our comments were ignored ten years ago and it is not acceptable to continue that posture. At the very least the permit should consider the planning and scheduling of installation for an alternative disinfection system and monitoring along with limits on the existing chlorine residual.

Response #3: Ecology did do further examination of the issue of chlorine disinfection since the previous permit was written. The previous permit required the use of a computer model to calculate effluent mixing with the receiving water. The results were presented in an engineering report approved by Ecology on February 24, 1995. The results were used by Ecology in 1999 to evaluate compliance with the state water quality standards. In 1999, Ecology performed a reasonable potential calculation for the WWTP discharge for winter and summer conditions. The calculation did show that if only one port on the eight port diffuser was being used, then an acute chlorine problem would exist during winter conditions. Video of the diffuser does not show only one port being used, so as long as the diffuser continues to work with more than one port functioning, no water quality based limit for chlorine is required in the permit. While many WWTP are switching to UV disinfection to avoid the toxic effects of chlorine and the dangers of handling and storing a dangerous chemical, without the requirement for a water quality based limit for chlorine, there is no legal driver to require the planning and scheduling of installation for an alternative disinfection system. Monitoring of the chlorine residual and amount used will continue seven days a week, as in the previous permit.

Your comments of ten years ago were responded to at that time. In part, the Ecology response stated, "Although chlorine can be toxic to aquatic organisms, this discharge is relatively small and is believed to have rapid mixing with the receiving water. We do not anticipate that responsible use would violate water quality standards. This assumption will be verified through the outfall study and modeling of effluent mixing. When this information is available it will be possible to establish an appropriate chlorine limit, if necessary, to protect the receiving water." Ecology did verify, based on the required information from the previous permit, that there should not be a water quality standards violation, as long as the diffuser is working.

If it is felt that the water quality standard for chlorine is not protective of the environment, then comments should be directed to Ecology's on-going effort to update the water quality standards, rather than commenting on individual discharge permits. Information on Ecology's water quality standards rule revision effort may be found on Ecology's web site at <http://www.ecy.wa.gov/laws-rules/activity/wac173201a.html>.

NPDES Permit No. WA0038075
For Rustlewood WWTP
Addendum to Response to Comments

Comments from Gary Yando, Director, Mason County Utilities & Waste Management

Comment #1: The system is no longer under the Department of Public Works. The responsibility is with the Mason County Department of Utilities and Waste Management. Making this change on all applicable documents appears necessary.

Response #1: With the change in responsibility, Department of Ecology (Ecology) will update the permit to reflect this change. At this time, the only place this change needs to be made is on the first page of the permit. No other references exist in the permit. The Fact Sheet reflects information from the time it was written, and is not updated after the permit is complete. No changes will be made to the Fact Sheet.

Comment #2: In the Fact Sheet General Information, the reference in I.A. to Public Works should be Department of Utilities and Waste Management, and contrary to what I.D. says, it is believed that some construction blueprints related to the outfall exist.

Response #2: This Fact Sheet for the previous permit is included with this permit reauthorization as part of the administrative record and explains the basis for the discharge limitations and conditions of the permit. As the Addendum to the Fact Sheet states, the Fact Sheet reflects the status in 1991, when the previous permit was issued. Some of the information may have changed since. The change to Department of Utilities and Waste Management will be made in the permit, but the Fact Sheet will not be updated. The statement about outfall drawings was accurate at the time, and Ecology still does not have as-built documents in our files. If the drawings exist, they can be used and submitted as part of the Outfall Evaluation required by condition S8 of the permit.

Comment #3: In the Fact Sheet Background Information it discusses high I/I that is now much lower, it says sludge is taken to Mason County Landfill when it is now taken directly to Bio-Recycling on Webb Hill, and it lists the last inspection as November 1990, when there have been several inspections since then.

Response #3: As stated above, this Fact Sheet for the previous permit is included with this permit reauthorization as part of the administrative record and explains the basis for the discharge limitations and conditions of the permit. As the Addendum to the Fact Sheet states, the Fact Sheet reflects the status in 1991, when the previous permit was issued. Some of the information may have changed since. Ecology recognizes that I/I has been greatly reduced, and therefore no further reduction is required by the new permit. Ecology notes the change in sludge disposal and agrees that the facility has been inspected more recently than 1990, including most recently in August 1999, September 2000, and February 2002.

Comment #4: In the Fact Sheet Permit Conditions, it states the system is relatively new, which we believe is no longer applicable, we installed alarms as required and approved by Ecology,

and an outfall inspection was completed in 1992. In a nut shell, we completed what was required of us in the previous permit.

Response #4: As stated above, this Fact Sheet for the previous permit is included with this permit reauthorization as part of the administrative record and explains the basis for the discharge limitations and conditions of the permit. As the Addendum to the Fact Sheet states, the Fact Sheet reflects the status in 1991, when the previous permit was issued. Some of the information may have changed since. Ecology recognizes that the system is no longer new, that upgrades were made to improve the alarm system, and that an outfall inspection was completed. The new permit does not require further improvements to the alarm system. The new permit does require an outfall inspection once during the five year permit term, which is typical for outfalls similar to this one, and is needed since the last inspection was ten years ago. Ecology agrees that requirements of the last permit were completed.

Comment #5: In the permit, change all references to Public Works to Department of Utilities and Waste Management.

Response #5: There is only one reference to Public Works, and it appears on the first page of the permit. It will be changed.